

WHAT IS CLAIMED IS:

1. An ink jet recording apparatus for recording data by discharging ink from ink discharge ports of an ink jet recording head, comprising:

5       a head recovering unit for performing an operation for recovering a discharge function of said ink jet recording head, said head recovering unit comprising a cap member for tightly closing said ink discharge ports;

10       a recording medium conveying mechanism for conveying the recording medium; and

          a connecting unit for transmitting a driving force of said recording medium conveying mechanism to said head recovering unit, said connecting unit  
15       switching between transmission and no transmission of the driving force to said head recovering unit in conjunction with a capping operation of said cap member.

20       2. The ink jet recording apparatus according to claim 1,

          wherein a first driving source for supplying a driving force to said recording medium conveying mechanism is connected to said connecting unit.

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3. The ink jet recording apparatus according to claim 2,

wherein said connecting unit is a mechanical clutch mechanism which can be set selectively in a connected condition where the connecting unit is connected to said head recovering unit so as to transmit the driving force to said head recovering unit or in a non-connected condition where the connecting unit is not connected to said head recovering unit so as not to transmit the driving force to said head recovering unit.

4. The ink jet recording apparatus according to claim 3,

wherein said connecting unit is a mechanical clutch mechanism comprising a sun gear coupled with said recording medium conveying mechanism, a planet gear coupled with said sun gear, and a gear holding member which holds said sun gear and said planet gear and is engageable with a driving mechanism for driving said cap member.

5. The ink jet recording apparatus according to claim 1,

wherein said head recovering unit has a sucking mechanism for sucking ink out of said ink jet recording head and

wherein said connecting unit transmits a driving force to said sucking mechanism in a connected

condition to said head recovering unit.

6. The ink jet recording apparatus according to claim 1,

5            wherein said ink jet recording apparatus has a second driving source for supplying a driving force to the cap member of said head recovering unit and a third driving source for supplying a driving force to a carriage mounting said ink jet recording head.

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7. The ink jet recording apparatus according to claim 6,

wherein said second driving source supplies a driving force for feeding said recording medium.

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8. The ink jet recording apparatus according to  
claim 1,

wherein said ink jet recording head discharges  
ink from the ink discharge ports utilizing heat  
20 energy generated by electrothermal converting  
elements.

9. A recovering method for an ink jet recording apparatus for recording data by ejecting ink from ink discharge ports of an ink jet recording head to a recording medium, comprising steps that:

a connecting unit transfers a driving force from

a first driving source for conveying a recording medium to a sucking unit in conjunction with an operation of a cap member to tightly close said ink discharge ports; and

5        said sucking unit to which said driving force is transmitted performs suction recovery of said ink jet recording head through said cap member.

10        10. The recovering method for the ink jet recording apparatus according to claim 9,  
         wherein said connecting unit is a clutch mechanism which comprises a sun gear coupled with a recording medium conveying mechanism, a planet gear coupled with said sun gear, and a gear holding member  
15        holding said sun gear and said planet gear, and is set in a connected condition to said sucking unit when said gear holding member is engaged with a driving mechanism of said cap member.

20        11. The recovering method for the ink jet recording apparatus according to claim 9,  
         wherein said cap member is driven by a second driving source.

25        12. The recovering method for the ink jet recording apparatus according to claim 9,  
         wherein said ink jet recording head ejects ink

off the back of the chair, and at last I have  
 written down the names of the people who  
 were present at the meeting.